



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 5**

**77 WEST JACKSON BOULEVARD**

**CHICAGO, IL 60604-3590**

REPLY TO THE ATTENTION OF

EPA Region 5 Records Ctr.



226449

January 29, 2002

**BY FACSIMILE AND FIRST CLASS MAIL**

John T. Smith II  
Covington & Burling  
1201 Pennsylvania Av NW  
Washington, D.C. 20004-2401

Kevin Ridley  
General Counsel  
Chicago Park District  
541 N. Fairbanks  
Chicago, Illinois 60611

Vincent S. Oleszkiewicz  
Baker & McKenzie  
One Prudential Plaza  
130 East Randolph Drive  
Chicago, Illinois 60601

Re: Lindsay Light II Site  
Investigation Work Plan  
DuSable Park, Chicago, Illinois

Dear Mr. Smith, Mr. Ridley and Mr. Oleszkiewicz:

I am enclosing U.S. EPA's comments on Kerr-McGee's November 12, 2001 Investigation Work Plan for DuSable Park. In my letter dated December 7, 2001 I had stated that U.S. EPA had no further comments on the November 12, 2001 plan and had approved it. As I discussed with Mr. Smith on December 11, 2001, however, and as his December 12, 2001 letter acknowledged, U.S. EPA did indeed have further comments. A copy of those comments are enclosed with this letter.

J.T. Smith, Kevin Ridley and Vincent S. Oleszkiewicz

January 29, 2002

Page 2

I would like to set up a conference call among Kerr-McGee, River East, and the Chicago Park District at the earliest convenient date to discuss any outstanding issues regarding the DuSable Park Investigation Work Plan, to develop a schedule for the Investigation Work Plan, and, also, to paraphrase Mr. Smith's December 12, 2001 letter, to clarify the roles and responsibilities of the parties in addressing future obligations as we have done at other Streeterville sites.

To allow Mr. Smith and Kerr-McGee time to review and respond to the enclosed U.S. EPA's Investigation Work Plan comments, I was thinking that we may be able to discuss the matter late next week or during the following week of February 11. Scheduling a phone call or meeting that accommodates many individuals can be difficult. As soon as you and your respective clients have had the opportunity to review the Investigation Work Plan comments and to discuss availability for a conference call or meeting, please advise me of several dates for a meeting or conference call. Personally, I would prefer a meeting but if a simple conference call can move our work forward then there is no reason to delay or incur travel expenses. In the meantime, if your client has a technical question I urge them to contact the On-Scene Coordinators directly. There is no need to wait until we are all together to answer such questions. Also, please alert me to any significant legal concerns that you believe must be considered before we discuss DuSable Park together. (That is not an invitation to challenge the constitutionality of CERCLA!)

As you are aware, there has been a good deal of public interest in the development of DuSable Park in recent months and U.S. EPA looks forward to working with Kerr-McGee, River East and the Chicago Park District to respond timely and responsibly to those expressions of interest. I appreciate your attention to this matter. Welcome aboard, Mr. Ridley!

Sincerely,



Mary L. Fulghum  
Associate Regional Counsel  
(312) 886-4683

cc: Padma Klejwa, ORC  
Fred Micke, OSC  
Verneta Simon, OSC

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
SUPERFUND DIVISION  
77 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604**

**DATE:** January 29, 2002

**SUBJECT:** Review, Kerr-McGee Chemical LLC "Response to U.S. EPA  
Comments Dated 11/1/01 re: Investigation Work Plan," DuSable  
Park, November 12, 2001

**FROM:** Fred Micke  
U.S. EPA Region 5  
On-Scene Coordinator  
Emergency Response Section #3

Verneta Simon  
U.S. EPA Region 5  
On-Scene Coordinator  
Emergency Response Section #3

**TO:** Mr. Bernard Bono  
Kerr McGee Chemical, LLC  
800 Weyrauch Street  
West Chicago, IL

I have reviewed the above document and have the following comments.

**General Comments**

1. Kerr-McGee, in their cover letter, commits only to analyze for U-238 decay series radionuclides. With the Th-232 decay series the fundamental set of contaminants of concern, the reason for such a restriction is not apparent. Moreover, there will undoubtedly be more gamma emitters in the sample, including radionuclides of the U-235 decay series and, perhaps, radioactive rare earths. Thus, the gamma analyses must not be restricted and concentrations for all confirmed radionuclides reported to U.S. EPA.
2. The cover letter states that samples will be prepared in accordance with SOP- 364 but that SOP does not describe the preparation protocols.

**Specific Comments**

1. **U.S. EPA Comment #1**—Kerr-McGee, in their cover letter, commits only to analyze for U-238 decay series radionuclides. With the Th-232 decay series the fundamental set of contaminants of concern, the reason for such a restriction is not apparent. Moreover, there will undoubtedly be more gamma emitters in the sample, including radionuclides of the U-235 decay series and, perhaps radioactive rare earths. Thus, the gamma analyses must not be restricted and concentrations for all confirmed radionuclides reported to U.S. EPA.
2. **SOP 214**—This SOP, as referred to in the response to U.S. EPA Comment #1, commits to remove rocks, sticks and foreign objects greater than 1 inch (see 11.1.5 and 11.2.5). U.S. EPA, in its Lindsay verifications, sifts the soil sample with a quarter inch screen. Because of this difference in protocols, U.S. EPA must, for this project, require split samples in the field from Kerr-McGee and analyze these according to our practice.
3. **SOP 364**—This SOP does not state how the samples will be prepared. This leaves uncertainties as to whether and how the sample will be homogenized or dried or moisture adjusted or otherwise prepared. Sample preparation methodology should be clearly stated, either in a reference to a specific portion of an SOP or in a statement unique to this project.
4. **Response to U.S. EPA Comment #2**—Although not stated in this cover letter, U.S. EPA will assume that boreholes will be advanced at the points of maximum gamma count rates for areas A, B1, B2 and C (or A, B, C, and D) as stated in the Investigation Work Plan, Scope and Objectives, paragraph 4.
5. **Response to U.S. EPA Comment #2**—There may be difficulty in deciding how to advance the borehole in Area B1 since the elevated gamma points are on a slope. They could be advanced vertically to check for seams. They could be advanced horizontally so that any potential seam could be followed. Both options have positives and negatives. U.S. EPA should, at this time, require that the borehole to be advanced vertically downward from the point of highest elevated gamma found on the slope.
6. **Response to U.S. EPA Comment #8**—More than U-238 should be the subject of analyses as noted above.

While it is reasonable to expect that U-235 will be found in its natural ratio to U-238, this should not be a basis upon which to report data. The actual concentrations found in gamma analyses should be those reported.

7. **Response to U.S. EPA Comment #16**—The intent of the original comment was to ensure that the data taken with the data logger was preserved for future reference if necessary.

8. **Response to U.S. EPA Comment #18**—U.S. EPA is very interested in the radiation levels at the very top surface. It will confuse data if the surface measurement is made with one instrument and the subsurface measurement is made with a different instrument. The ½ inch probe only should be used for both subsurface and down borehole measurements. The downhole protocol must include a measurement in the hole, measured at ground surface.

After this, measurements can start at 3 inches below the ground surface and can be measured over additional 6 inch intervals on down (e.g., 3", 3" + 6", 3" + 12", etc.). This corresponds to U.S. EPA's need to conform to the features of Title 40, Part 192, of the Code of Federal Regulations (40 CFR 192).

9. **Response to U.S. EPA Comment #20**—The decision on advancing any borehole should not be tied to action criterion. It may be a significant point just if the borehole count rate increases, even if the count rate equivalent to the action criterion is not reached.
10. **Response to U.S. EPA Comment #23**—As stated earlier in this memo, the intent is to preserve the data logger data. It will not be sufficient to just record this in the field log.
11. **Investigation Work Plan (IWP), Scope and Objectives, para. 4**—As stated earlier in this memo, count rate data from boreholes is useful even if it does not exceed the equivalent of 7.1 pCi/g total radium. All count rate data from boreholes must be recorded.
12. **IWP, Scope and Objectives, para. 6**—The auger method used should ensure that the soil sample taken is for the interval from 3 inches above to 3 inches below the high gamma count rate level. This corresponds to the 6 inch criterion associated with the cleanup criterion and 40 CFR 192.
13. **SOP-210, 5.3**—There are four anomalies on the site, A, B1, B2 and C.
14. **SOP-210, 11.2.4 and 11.2.5**—If the sample is taken from the surface region, the top three inches of soil must not be discarded. All soil samples should be taken for 6 inch layers, starting at the ground surface. This should include the dirt around the grass and plants.
15. **SOP-347, 3.2**—This definition of "Clean Area" is much too lax. It has been standard procedure, used by contractors for the various Lindsay sites, to create a restricted access area at the perimeter of the known contamination, with a buffer. Effectively, the perimeter count rate has been no more than twice background.
16. **SOP-347, 5.1.1**—"ccpm" is not defined.

17. **SOP-347, 5.2**—Decontamination of objects should, foremostly, be to Nuclear Regulatory Commission levels in Regulatory Guide 1.86 and, only if more restrictive, to State of Illinois regulatory levels.
18. **SOP-346**—This SOP does not have sufficient specifics on sample preparation. For example, there is no discussion of screening, of homogenizing, of

pulverizing, and of handling moisture (although WCP-365 is referenced, it is not provided). Because of this lack of specificity, U.S. EPA must, for this project, split samples in the field with Kerr-McGee and analyze these according to our practice.

19. **SOP-655, 5.3.4**—There must be a count rate taken with the downhole gamma logging probe (apparently Ludlum Model 44-62) at the ground surface as well as at 3 inches below ground level. Measurements starting at 3 inches below the ground surface and at 6 inch increments on down (3", 3" + 6", 3" + 12", etc.) can be the protocol so that gamma count rates can be tied to the 6 inch layers associated with 40 CFR 192 standards.
20. **SOP-655, 5.3.6**—If the gamma readings increase with depth, there is the potential that buried material is down deeper, perhaps deeper than 24 inches. The readings must be interpreted in this light, namely, that if readings are increasing, even if the equivalent of 7.1 pCi/g is not reached, there may be sufficient justification to continue measuring deeper. Boring and gamma logging deeper is practical in that 1) it may provide an immediate answer to the question of why gamma count rates are increasing and 2) it may eliminate the need to remobilize for further delineation.